

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 2004/001758

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: E21B 21/08, E21B 44/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: E21B, E21C, E21F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6637522 B2 (H.E. WILSON ET AL), 28 October 2003 (28.10.2003), column 4, line 19 - line 29, figures 1-11, abstract --	1-21
A	US 4793421 A (R.A. JASINSKI), 27 December 1988 (27.12.1988), figures 1-6, abstract --	1-21
A	US 5348106 A (U. MATTERO), 20 Sept 1994 (20.09.1994), figures 1-4, abstract --	1-21
A	US 5121802 A (R. RAJALA ET AL), 16 June 1992 (16.06.1992), figures 1-2, abstract --	1-21

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

28 February 2005

Date of mailing of the international search report

17-03-2005

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. + 46 8 666 02 86

Authorized officer
Ingemar Hedlund / MRo
Telephone No. + 46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 2004/001758

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3550696 A (J.W. KENNEDAY), 29 December 1970 (29.12.1970), figures 1-3, abstract -- -----	1-21

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 2004/001758

US	6637522	B2	28/10/2003	AU	7217901	A	18/04/2002
				US	20010050186	A	13/12/2001
				US	20010013426	A	16/08/2001
				AU	763808	B	31/07/2003
				AU	6062099	A	01/06/2000
				US	6216800	B	17/04/2001
				ZA	9906268	A	10/04/2000
				ZA	200107741	A	19/03/2002
<hr/>				<hr/>			
US	4793421	A	27/12/1988	AU	594993	B	22/03/1990
				AU	6716587	A	15/10/1987
				CA	1265601	A	06/02/1990
				JP	62236990	A	17/10/1987
				ZA	8609508	A	26/08/1987
<hr/>				<hr/>			
US	5348106	A	20/09/1994	AU	658168	B	06/04/1995
				AU	1153392	A	17/08/1992
				CA	2099248	A,C	04/07/1992
				EP	0564504	A,B	13/10/1993
				SE	0564504	T3	
				FI	90276	B,C	30/09/1993
				FI	910039	A	04/07/1992
				JP	3218331	B	15/10/2001
				JP	6504337	T	19/05/1994
				NO	306128	B	20/09/1999
				NO	932393	A	30/06/1993
				WO	9212329	A	23/07/1992
<hr/>				<hr/>			
US	5121802	A	16/06/1992	AT	78890	A	15/05/1993
				AT	396962	B	25/01/1994
				AU	619668	B	30/01/1992
				AU	5229090	A	11/10/1990
				BR	9001590	A	07/05/1991
				CA	2013711	A,C	06/10/1990
				CH	681824	A	28/05/1993
				DE	4011083	A	11/10/1990
				FI	86008	B,C	13/03/1992
				FI	891655	A	07/10/1990
				FR	2646464	A,B	02/11/1990
				IT	1240166	B	27/11/1993
				IT	9067247	D	00/00/0000
				JP	2292494	A	03/12/1990
				NO	174478	B,C	31/01/1994
				NO	901549	A	08/10/1990
				SE	506255	C	24/11/1997
				SE	9001246	A	07/10/1990
				ZA	9002595	A	30/01/1991
<hr/>				<hr/>			
US	3550696	A	29/12/1970	NONE			
<hr/>							